

PEBAX[®] RNEW[®] 80R53 SP 02

Polyether block **Pebax[®] Rnew[®] 80R53 SP 02 resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide based on renewable resources. This SP grade has been developed to be heat and UV resistant.

The percentage of **renewable carbon is 89%** (calculated value, based on ASTM D6866).

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
MECHANICAL PROPERTIES			
Tensile Modulus	- / 944	MPa	ISO 527-1/-2
	- /	psi	
Yield stress	137000 - / 733	MPa	ISO 527-1/-2
	- / 4790	psi	
Yield strain	- / 24	%	ISO 527-1/-2
Nominal Strain at Break	- / >50	%	ISO 527-1/-2
Shore D Hardness	67 / *	-	ISO 868
Charpy Impact Strength, +23°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Impact Strength, -30°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	- / 43	kJ/m ²	ISO 179/1eA
	- / 20.5	ftlb/in ²	
Charpy Notched Impact Strength, -30°C	- / 16	kJ/m ²	ISO 179/1eA
	- / 7.61	ftlb/in ²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	188 / *	°C	ISO 11357-1/-3
OTHER PROPERTIES			
Water Absorption	0.7 / *	%	Sim. to ISO 62
Humidity Absorption	0.8 / *	%	Sim. to ISO 62
Density	1020 / 1020	kg/m ³	ISO 1183
	1.02 / 1.02	g/cm ³	
%Bio-Based	89	-	ASTM D6866

MAIN APPLICATIONS:

- Ski shoes
- Athletic foot wear components

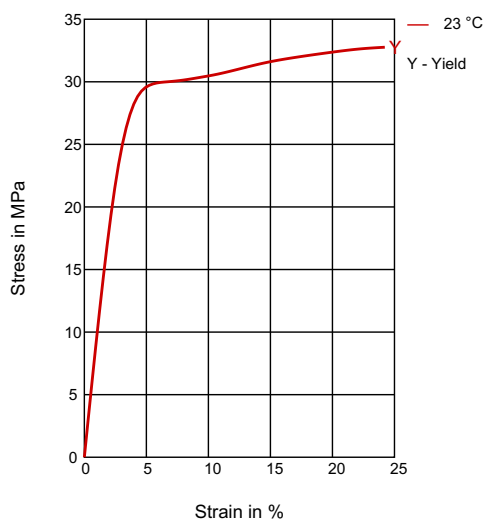
PACKAGING:

This grade is delivered dried in sealed packaging (25 kg bags) ready to be processed.

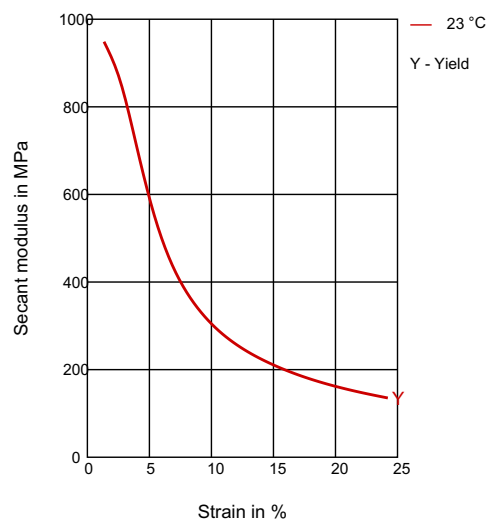
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DIAGRAMS

STRESS-STRAIN



SECANT MODULUS-STRAIN



Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 230°C / 260°C / 290°C.
- Typical mold temperature : 25 – 60°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 5-7 hours at 70-80°C.

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PROCESSING

Injection Molding, Other Extrusion

DELIVERY FORM

Pellets

SPECIAL CHARACTERISTICS

Bio-Based, Heat Stabilized, Light Stabilized

REGIONAL AVAILABILITY

North America, Europe, Asia Pacific, South and Central America, Near East/Africa